



"Lauzon, James"  
<James.Lauzon@veoliawaterna.com>

04/07/2005 10:17 AM

To ""Shepherd, Joseph (DEP)""  
<Joseph.Shepherd@state.ma.us>, "David R. Burns  
(david.burns@state.ma.us)" <david.burns@state.ma.us>,  
cc mthoreson@ci.brockton.ma.us, dnorton@ci.brockton.ma.us,  
""eczaja@ci.brockton.ma.us"" <eczaja@ci.brockton.ma.us>,  
"Kiani, Farzin" <farzin.kiani@veoliawaterna.com>

bcc

Subject

Gentlemen:

Please find, attached, the Notification of Exceedence form for Permit exceptions attributable to high flows. There were 4 Loadings violations, two for TSS and two for CBOD. There was also a weekly violation for TSS and CBOD that will be reported on April's DMR.

Should you have any questions or concerns, please feel free to contact me at your earliest convenience.

James Lauzon  
Project Manager  
Veolia Water North America  
303 Oak Hill Way  
Brockton, MA 02301  
508-580-7885 X 112  
508-559-0760 FAX  
[james.lauzon@veoliawaterna.com](mailto:james.lauzon@veoliawaterna.com)

Confidentiality Note: This e-mail and any attachments to it are intended only for the named recipients and may contain confidential information. If you are not the one of the intended recipients, please do not duplicate or forward this e-mail message and immediately delete it from your computer



DEP Violation Notification-4~7~05.doc





Date: 1/12/2005

Joseph J. Shepherd  
Department of Environmental Protection  
Southeast Region  
20 Riverside Drive  
Lakeville, MA 02347

Subject: Brockton Wastewater Treatment Facility  
Notification of Unauthorized Discharge or Bypass Report/Notification of Permit  
Exceedence

Dear Mr. Shepherd:

In accordance with Department of Environmental Protection policy, we are formally providing  
required written notification of the following:

- ☐ 1. Notification of Unauthorized Discharge or Bypass Report  
☒ 2. Notification of Permit Exceedence

The following notification has been made:

	<u>Person Contacted</u>	<u>By Email</u>	<u>Date/Time</u>	<u>By Fax</u>	<u>Date/Time</u>
MADEP	Joseph Shepherd	X	4/7/05 / 10:15 am	X	10:25 am
	David Burns	X	4/7/05 / 10:15 am		
EPA	Steven Couto	X	4/7/05 / 10:15 am	X	10:25 am

Description and cause of noncompliance:

TSS Lbs./D - Max. Daily 3/28 = 7963 (4500 lbs/day limit) 22 TSS - 43.4 MGD  
TSS Lbs./D - Max. Daily 3/29 = 9744 (4500 lbs/day limit) 23 TSS - 50.8 MGD  
CBOD Lbs/D - Max. Daily 3/28 = 5065 (4500 lbs/day limit) 14 CBOD - 27.0 MGD  
CBOD Lbs/D - Max. Daily 3/29 = 6349 (4500 lbs/day limit) 15 CBOD - 50.8 MGD

On March 28, 2005, we received 4.22" of rain inside of 8 hours time. The receiving waters  
breached the chlorine contact tanks resulting in sampling some silt-laden river water and some  
contamination of same with primary effluent. Based on the best information and technology  
available to us, the TSS values for the 28<sup>th</sup> and 29<sup>th</sup>, respectively, were 22 and 23 mg/l.

By: James M. Lauzon  
Title: Project Manager

cc: Steven Couto, USEPA  
David Burns, MADEP  
Michael Thoreson, Brockton DPW Commissioner  
David Norton, Brockton W&S Contract Admin.  
Elaine Czaja, DPW Admin. Asst., City of Brockton  
Farzin Kiani, VVNA Business Manager






"Lauzon, James"  
<James.Lauzon@veoliawat  
rna.com>

03/29/2005 01:41 PM

To ""Shepherd, Joseph (DEP)""  
<Joseph.Shepherd@state.ma.us>, "David R. Burns  
(david.burns@state.ma.us)" <david.burns@state.ma.us>,  
cc ""Michael Thoreson"" <mthoreson@ci.brockton.ma.us>,  
""Norton David"" <dnorton@ci.brockton.ma.us>, "Kiani,  
Farzin" <farzin.kiani@veoliawaterna.com>

bcc

Subject Storm event

History:  This message has been forwarded.

Gentlemen:

The flow went over 60 mgd late this morning. The TSS was 28 mg/l for yesterday. We will definitely have loadings violations for a few days, regardless of the TSS levels. We will keep you apprised.

James Lauzon  
Project Manager  
Veolia Water North America  
303 Oak Hill Way  
Brockton, MA 02301  
508-580-7885 X 112  
508-559-0760 FAX  
[james.lauzon@veoliawaterna.com](mailto:james.lauzon@veoliawaterna.com)

Confidentiality Note: This e-mail and any attachments to it are intended only for the named recipients and may contain confidential information. If you are not the one of the intended recipients, please do not duplicate or forward this e-mail message and immediately delete it from your computer





"Lauzon, James"  
<James.Lauzon@veoliawaternna.com>

03/29/2005 07:56 AM

To ""Shepherd, Joseph (DEP)""  
<Joseph.Shepherd@state.ma.us>, "David R. Burns  
(david.burns@state.ma.us)" <david.burns@state.ma.us>,  
cc ""Michael Thoreson"" <mthoreson@ci.brockton.ma.us>,  
""Norton David"" <dnorton@ci.brockton.ma.us>, "Kiani,  
Farzin" <farzin.kiani@veoliawaternna.com>

bcc

Subject Storm event

History:

✉ This message has been forwarded.

The Brockton AWRF is receiving flows of 54 mgd. The river depth has equalized the water level at the effluent end of the chlorine contact tanks. We have begun chlorinating / dechlorinating. We will forward TSS concentrations when they become available. The rainfall measured at the facility was 4.2" over the last 24 hours.

Should you have any questions, please feel free to contact me at your earliest convenience.

James Lauzon  
Project Manager  
Veolia Water North America  
303 Oak Hill Way  
Brockton, MA 02301  
508-580-7885 X 112  
508-559-0760 FAX  
[james.lauzon@veoliawaternna.com](mailto:james.lauzon@veoliawaternna.com)

Confidentiality Note: This e-mail and any attachments to it are intended only for the named recipients and may contain confidential information. If you are not the one of the intended recipients, please do not duplicate or forward this e-mail message and immediately delete it from your computer





Date: 1/12/2005

Joseph J. Shepherd  
Department of Environmental Protection  
Southeast Region  
20 Riverside Drive  
Lakeville, MA 02347

Subject: Brockton Wastewater Treatment Facility  
Notification of Unauthorized Discharge or Bypass Report/Notification of Permit Exceedence

Dear Mr. Shepherd:

In accordance with Department of Environmental Protection policy, we are formally providing required written notification of the following:

- ☐ 1. Notification of Unauthorized Discharge or Bypass Report  
☒ 2. Notification of Permit Exceedence

The following notification has been made:

	<u>Person Contacted</u>	<u>By Email</u>	<u>Date/Time</u>	<u>By Fax</u>	<u>Date/Time</u>
MADEP	Joseph Shepherd	X	4/7/05 / 10:15 am	X	10:25 am
	David Burns	X	4/7/05 / 10:15 am		
EPA	Steven Couto	X	4/7/05 / 10:15 am	X	10:25 am

Description and cause of noncompliance:

TSS Lbs./D - Max. Daily 3/28 = 7963 (4500 lbs/day limit) 22 TSS - 43.4 MGD  
TSS Lbs./D - Max. Daily 3/29 = 9744 (4500 lbs/day limit) 23 TSS - 50.8 MGD  
CBOD Lbs/D - Max. Daily 3/28 = 5065 (4500 lbs/day limit) 14 CBOD - 27.0 MGD  
CBOD Lbs/D - Max. Daily 3/29 = 6349 (4500 lbs/day limit) 15 CBOD - 50.8 MGD

On March 28, 2005, we received 4.22" of rain inside of 8 hours time. The receiving waters breached the chlorine contact tanks resulting in sampling some silt-laden river water and some contamination of same with primary effluent. Based on the best information and technology available to us, the TSS values for the 28<sup>th</sup> and 29<sup>th</sup>, respectively, were 22 and 23 mg/l.

By: James M. Lauzon  
Title: Project Manager

cc: Steven Couto, USEPA  
David Burns, MADEP  
Michael Thoreson, Brockton DPW Commissioner  
David Norton, Brockton W&S Contract Admin.  
Elaine Czaja, DPW Admin. Asst., City of Brockton  
Farzin Kiani, VVNA Business Manager





Date: 1/12/2005

Joseph J. Shepherd  
Department of Environmental Protection  
Southeast Region  
20 Riverside Drive  
Lakeville, MA 02347

Subject: Brockton Wastewater Treatment Facility  
Notification of Unauthorized Discharge or Bypass Report/Notification of Permit  
Exceedence

Dear Mr. Shepherd:

In accordance with Department of Environmental Protection policy, we are formally providing  
required written notification of the following:

- ☐ 1. Notification of Unauthorized Discharge or Bypass Report  
☒ 2. Notification of Permit Exceedence

The following notification has been made:

	<u>Person Contacted</u>	<u>By Email</u>	<u>Date/Time</u>	<u>By Fax</u>	<u>Date/Time</u>
MADEP	Joseph Shepherd	X	1/12/05 / 9:35 am		
	David Burns	X	1/12/05 / 9:35 am		
EPA	Steven Couto	X	1/12/05 / 9:35 am	X	9:45 am

Description and cause of noncompliance:

TSS Lbs./day – Max. Daily 1/4 = 6022 (4500 lbs/day limit)	29 TSS - 24.9 MGD
TSS Lbs./day – Max. Daily 1/9 = 6538 (4500 lbs/day limit)	28 TSS - 28.0 MGD
TSS Lbs./day – Max. Daily 1/10 = 5629 (4500 lbs/day limit)	25 TSS - 27.0 MGD

On Monday January 3, 2005, we began taking South aeration basin #2 offline for the Phase 1 General Contractor. We transferred the biomass directly to North Aeration basins #3&4. The transfer was completed without incident but it appears the mass did not adapt well to it's new environment. Although we did not exceed our TSS concentration limit of 30 mg/l on any of the 3 days, high flows due to recent rain events and winter thaw caused daily loading exceedences.

By: James M. Lauzon  
Title: Project Manager

cc: Steven Couto, USEPA  
David Burns, MADEP  
Michael Thoreson, Brockton DPW Commissioner  
David Norton, Brockton W&S Contract Admin.  
Farzin Kiani, VVNA Business Manager





Date: 1/12/2005

Joseph J. Shepherd  
Department of Environmental Protection  
Southeast Region  
20 Riverside Drive  
Lakeville, MA 02347

Subject: Brockton Wastewater Treatment Facility  
Notification of Unauthorized Discharge or Bypass Report/Notification of Permit  
Exceedence

Dear Mr. Shepherd:

In accordance with Department of Environmental Protection policy, we are formally providing  
required written notification of the following:

- ☐ 1. Notification of Unauthorized Discharge or Bypass Report  
☒ 2. Notification of Permit Exceedence

The following notification has been made:

	<u>Person Contacted</u>	<u>By Email</u>	<u>Date/Time</u>	<u>By Fax</u>	<u>Date/Time</u>
MADEP	Joseph Shepherd	X	1/12/05 / 9:35 am		
	David Burns	X	1/12/05 / 9:35 am		
EPA	Steven Couto	X	1/12/05 / 9:35 am	X	9:45 am

Description and cause of noncompliance:

TSS Lbs./day – Max. Daily 1/4 = 6022 (4500 lbs/day limit)  
TSS Lbs./day – Max. Daily 1/9 = 6538 (4500 lbs/day limit)  
TSS Lbs./day – Max. Daily 1/10 = 5629 (4500 lbs/day limit)

On Monday January 3, 2005, we began taking South aeration basin #2 offline for the Phase 1  
General Contractor. We transferred the biomass directly to North Aeration basins #3&4. The  
transfer was completed without incident but it appears the mass did not adapt well to it's new  
environment. Although we did not exceed our TSS concentration limit of 30 mg/l on any of the 3  
days, high flows due to recent rain events and winter thaw caused daily loading exceedences.

By: James M. Lauzon  
Title: Project Manager

cc: Steven Couto, USEPA  
David Burns, MADEP  
Michael Thoreson, Brockton DPW Commissioner  
David Norton, Brockton W&S Contract Admin.  
Farzin Kiani, VVNA Business Manager





Date: 1/12/2005

Joseph J. Shepherd  
Department of Environmental Protection  
Southeast Region  
20 Riverside Drive  
Lakeville, MA 02347

Subject: Brockton Wastewater Treatment Facility  
Notification of Unauthorized Discharge or Bypass Report/Notification of Permit Exceedence

Dear Mr. Shepherd:

In accordance with Department of Environmental Protection policy, we are formally providing required written notification of the following:

- ☐ 1. Notification of Unauthorized Discharge or Bypass Report
- ☒ 2. Notification of Permit Exceedence

The following notification has been made:

	<u>Person Contacted</u>	<u>By Email</u>	<u>Date/Time</u>	<u>By Fax</u>	<u>Date/Time</u>
MADEP	Joseph Shepherd	X	4/7/05 / 10:15 am	X	10:25 am
	David Burns	X	4/7/05 / 10:15 am		
EPA	Steven Couto	X	4/7/05 / 10:15 am	X	10:25 am

Description and cause of noncompliance:

TSS Lbs./D - Max. Daily 3/28 = 7963 (4500 lbs/day limit) 22 TSS - 43.4 MGD  
 TSS Lbs./D - Max. Daily 3/29 = 9744 (4500 lbs/day limit) 23 TSS - 50.8 MGD  
 CBOD Lbs/D - Max. Daily 3/28 = 5065 (4500 lbs/day limit) 14 CBOD - 27.0 MGD  
 CBOD Lbs/D - Max. Daily 3/29 = 6349 (4500 lbs/day limit) 15 CBOD - 50.8 MGD

On March 28, 2005, we received 4.22" of rain inside of 8 hours time. The receiving waters breached the chlorine contact tanks resulting in sampling some silt-laden river water and some contamination of same with primary effluent. Based on the best information and technology available to us, the TSS values for the 28<sup>th</sup> and 29<sup>th</sup>, respectively, were 22 and 23 mg/l.

By: James M. Lauzon  
 Title: Project Manager

cc: Steven Couto, USEPA  
 David Burns, MADEP  
 Michael Thoreson, Brockton DPW Commissioner  
 David Norton, Brockton W&S Contract Admin.  
 Elaine Czaja, DPW Admin. Asst., City of Brockton  
 Farzin Kiani, VVNA Business Manager





VEOLIA WATER NORTH AMERICA  
303 Oak Hill Way  
Brockton, MA 02301

Tel: 508-580-7885 X 116  
Fax: 508-559-0760

## A small square icon with a textured, dotted pattern, followed by the word "Fax" in a bold, sans-serif font.

TO: Steven Costa Couto  
FAX: 617-918-1810  
FROM: Kathy Ferrara  
DATE: 1-12-05  
SUBJECT: Permit Exceedence  
PAGES: 2

Including this page

THIS TRANSMISSION CONTAINS CONFIDENTIAL INFORMATION INTENDED FOR USE ONLY BY THE ABOVE NAMED RECIPIENT. READING, DISCUSSION, DISTRIBUTION, OR COPYING OF THIS MESSAGE IS STRICTLY PROHIBITED BY ANYONE OTHER THAN THE NAMED RECIPIENT OR HIS OR HER EMPLOYEES OR AGENTS. IF YOU HAVE RECEIVED THIS FAX IN ERROR, PLEASE IMMEDIATELY NOTIFY US BY TELEPHONE (COLLECT), AND RETURN THE ORIGINAL MESSAGE TO US AT THE ABOVE ADDRESS VIA U.S. POSTAL SERVICE.







Date: 1/12/2005

Joseph J. Shepherd  
Department of Environmental Protection  
Southeast Region  
20 Riverside Drive  
Lakeville, MA 02347

Subject: Brockton Wastewater Treatment Facility  
Notification of Unauthorized Discharge or Bypass Report/Notification of Permit  
Exceedence

Dear Mr. Shepherd:

In accordance with Department of Environmental Protection policy, we are formally providing  
required written notification of the following:

- ☐ 1. Notification of Unauthorized Discharge or Bypass Report  
☒ 2. Notification of Permit Exceedence

The following notification has been made:

	<u>Person Contacted</u>	<u>By Email</u>	<u>Date/Time</u>	<u>By Fax</u>	<u>Date/Time</u>
MADEP	Joseph Shepherd	X	1/12/05 / 9:35 am		
	David Burns	X	1/12/05 / 9:35 am		
EPA	Steven Couto	X	1/12/05 / 9:35 am	X	9:45 am

Description and cause of noncompliance:

TSS Lbs./day – Max. Daily 1/4 = 6022 (4500 lbs/day limit)  
TSS Lbs./day – Max. Daily 1/9 = 6538 (4500 lbs/day limit)  
TSS Lbs./day – Max. Daily 1/10 = 5629 (4500 lbs/day limit)

On Monday January 3, 2005, we began taking South aeration basin #2 offline for the Phase 1  
General Contractor. We transferred the biomass directly to North Aeration basins #3&4. The  
transfer was completed without incident but it appears the mass did not adapt well to it's new  
environment. Although we did not exceed our TSS concentration limit of 30 mg/l on any of the 3  
days, high flows due to recent rain events and winter thaw caused daily loading exceedences.

By: James M. Lauzon  
Title: Project Manager

cc: Steven Couto, USEPA  
David Burns, MADEP  
Michael Thoreson, Brockton DPW Commissioner  
David Norton, Brockton W&S Contract Admin.  
Farzin Kiani, VVNA Business Manager





"Lauzon, James"  
<James.Lauzon@veoliawaterna.com>

01/05/2005 08:09 AM

To: "Joseph Shepherd (joseph.shepherd@state.MA.US)"  
<joseph.shepherd@state.MA.US>, Steven  
Couto/R1/USEPA/US@EPA, "david.burns@state.ma.us"  
cc: "Dave Norton (E-mail)" <dnorton@ci.brockton.ma.us>, "Kiani, Farzin"  
<farzin.kiani@veoliawaterna.com>, "Mike Thoreson"  
<mthoreson@ci.brockton.ma.us>  
Subject: Process Alterations

Gentlemen:

We will be taking our south side aeration basins off-line today to prepare for construction-related activities. While we have tried to develop the best strategy to perform the operation with as little environmental impact as possible, high flows due to precipitation and snow melting could pose a challenge problem. We will do everything possible to try to remain in compliance through this necessary operational change. We will notify you immediately if there are any Permit compliance exceptions.

Thank you

James Lauzon  
Project Manager  
Veolia Water North America  
303 Oak Hill Way  
Brockton, MA 02301  
508-580-7885 X 112  
508-559-0760 FAX  
[james.lauzon@veoliawaterna.com](mailto:james.lauzon@veoliawaterna.com)

Confidentiality Note: This e-mail and any attachments to it are intended only for the named recipients and may contain confidential information. If you are not the one of the intended recipients, please do not duplicate or forward this e-mail message and immediately delete it from your computer





"Lauzon, James"  
<James.Lauzon@veolia  
iawaterna.com>

01/05/2005 08:09 AM

To: "Joseph Shepherd (joseph.shepherd@state.MA.US)"  
<joseph.shepherd@state.MA.US>, Steven  
Couto/R1/USEPA/US@EPA, "david.burns@state.ma.us"  
cc: "Dave Norton (E-mail)" <dnorton@ci.brockton.ma.us>, "Kiani, Farzin"  
<farzin.kiani@veoliawaterna.com>, "Mike Thoreson"  
<mthoreson@ci.brockton.ma.us>  
Subject: Process Alterations

Gentlemen:

We will be taking our south side aeration basins off-line today to prepare for construction-related activities. While we have tried to develop the best strategy to perform the operation with as little environmental impact as possible, high flows due to precipitation and snow melting could pose a challenge problem. We will do everything possible to try to remain in compliance through this necessary operational change. We will notify you immediately if there are any Permit compliance exceptions.

Thank you

James Lauzon  
Project Manager  
Veolia Water North America  
303 Oak Hill Way  
Brockton, MA 02301  
508-580-7885 X 112  
508-559-0760 FAX  
[james.lauzon@veoliawaterna.com](mailto:james.lauzon@veoliawaterna.com)

Confidentiality Note: This e-mail and any attachments to it are intended only for the named recipients and may contain confidential information. If you are not the one of the intended recipients, please do not duplicate or forward this e-mail message and immediately delete it from your computer





2004 NOV -4 P 8:25

November 3, 2004

Robin E. Neas, Environmental Protection Specialist  
Water Technical Unit (SEW)  
U.S. Environmental Protection Agency  
P.O. Box 8127  
Boston, MA. 02114

Dear Ms. Neas:

Subject: Brockton, MA NPDES Permit no. MA 0101010  
Annual Chlorination System Report

In accordance with the requirements of the subject NPDES Permit, Part 1, Paragraph E4, Chlorination System Report, we are submitting this report for the period November 1, 2003 through October 31, 2004.

One exceedence of effluent TRC was reported during the subject period.

Three exceedances of Fecal Coliform were reported during this period. Please refer to the chart below for specifics.

Date	Violation (#/100)	Residual (mg/l)	Post Chlorination Residual (mg/l)	Sodium Hypochlorite Feed (gals/day)	Plant Flow (mgd)
April 4, 2004	2167	0.35	0	242	27.3
April 14, 2004	2113	0.42	0	187	40.3
April 15, 2004	N/A	0.42	0.16	183	38.7
July 7, 2004	580	0.16	0	73	12.7



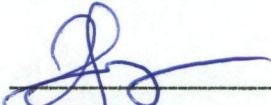
November 1, 2004  
Robin Neas, U.S.E.P.A  
Page 2

2004 NOV -4 P 8: 26

During the month of April 2004, there was significant rainfall (7.74 ") which resulted in very high flows. The high flows significantly contributed to the two (2) April fecal coliform exceedences as well as the Chlorine Residual exceedence. The July Fecal Coliform exceedence was attributable to a mechanical failure of the Hypochlorite feed pump.

If you should have any questions or need any further assistance please contact my office @ (508) 580 – 7885 X 112.

Sincerely,

A handwritten signature in blue ink, appearing to read "James M. Lauzon", is written over a horizontal line.

James M. Lauzon  
Project Manager

JML/kmf

cc: Michael L. Thoreson, DPW Commissioner  
David A. Norton, Water & Sewer Contract Administrator  
MA DEP, Bureau Resource Protection Lakeville



**CHLORINATION REPORT**  
**BROCKTON,MA AWRF**

Page 1 of 1

DATE	FLOW w/o recycle  mgd	CHLORINE RESIDUAL		HYPOCHLORITE USE			COLIFORM Final Effluent #/100ml
		Final Effluent mg/L	Contact Tank mg/L	Sand Filters gpd	Contact Tanks gpd	Total gpd	
11/01/03	17.6	0.0	0.35	137		137	
11/02/03	18.7	0.0	0.35	137		137	
11/03/03	18.4	0.0	0.35	135		135	
11/04/03	17.8	0.0	0.40	119		119	
11/05/03	17.8	0.0	0.24	112		112	
11/06/03	16.8						
11/07/03	17.0						
11/08/03	18.6						
11/09/03	17.4						
11/10/03	16.2						
11/11/03	16.6						
11/12/03	14.8						
11/13/03	16.3						
11/14/03	16.1						
11/15/03	16.0						
11/16/03	15.9						
11/17/03	15.9						
11/18/03	15.8						
11/19/03	15.5						
11/20/03	16.1						
11/21/03	15.5						
11/22/03	16.7						
11/23/03	16.5						
11/24/03	16.2						
11/25/03	16.3						
11/26/03	16.4						
11/27/03	16.2						
11/28/03	15.9						
11/29/03	17.3						
11/30/03	14.7						
Minimum	14.7	0.0	0.24	112		112	
Average	16.6	0.0	0.34	128		128	
Maximum	18.7	0.0	0.40	137		137	
Total	496.8			640		640	

Geo Mean

2004 NOV 24 P 8:26



# CHLORINATION REPORT

## BROCKTON,MA AWRF

Page 1 of 1

DATE	FLOW w/o recycle  mgd	CHLORINE RESIDUAL		HYPOCHLORITE USE			COLIFORM Final Effluent #/100ml
		Final Effluent mg/L	Contact Tank mg/L	Sand Filters gpd	Contact Tanks gpd	Total gpd	
12/01/03	16.2						
12/02/03	15.8						
12/03/03	15.6						
12/04/03	15.7						
12/05/03	15.4						
12/06/03	14.7						
12/07/03	17.0						
12/08/03	18.0						
12/09/03	16.6						
12/10/03	17.5						
12/11/03	29.9						
12/12/03	30.9						
12/13/03	27.0						
12/14/03	27.7						
12/15/03	42.0						
12/16/03	33.9						
12/17/03	40.0						
12/18/03	42.8						
12/19/03	35.6						
12/20/03	32.0						
12/21/03	30.0						
12/22/03	28.0						
12/23/03	27.0						
12/24/03	27.1						
12/25/03	27.6						
12/26/03	27.2						
12/27/03	26.0						
12/28/03	25.6						
12/29/03	21.3						
12/30/03	22.8						
12/31/03	22.4						
Minimum	14.7						
Average	25.5						
Maximum	42.8						
Total	789.5						

2004 NOV -4 P 8:26

Geo Mean



# CHLORINATION REPORT

## BROCKTON,MA AWRF

Page 1 of 1

DATE	FLOW w/o recycle  mgd	CHLORINE RESIDUAL		HYPOCHLORITE USE			COLIFORM Final Effluent #/100ml
		Final Effluent mg/L	Contact Tank mg/L	Sand Filters gpd	Contact Tanks gpd	Total gpd	
01/01/04	20.8						
01/02/04	22.0						
01/03/04	22.4						
01/04/04	22.4						
01/05/04	23.2						
01/06/04	24.1						
01/07/04	23.8						
01/08/04	21.8						
01/09/04	21.7						
01/10/04	22.3						
01/11/04	23.0						
01/12/04	20.2						
01/13/04	20.5						
01/14/04	19.8						
01/15/04	19.4						
01/16/04	18.3						
01/17/04	18.5						
01/18/04	16.4						
01/19/04	16.9						
01/20/04	17.6						
01/21/04	17.3						
01/22/04	17.5						
01/23/04	16.7						
01/24/04	17.2						
01/25/04	15.1						
01/26/04	16.9						
01/27/04	16.1						
01/28/04	16.2						
01/29/04	15.8						
01/30/04	17.0						
01/31/04	17.6						
Minimum	15.1						
Average	19.3						
Maximum	24.1						
Total	598.4						

2004 NOV -4 P 8: 26

Geo Mean



# CHLORINATION REPORT

## BROCKTON,MA AWRF

Page 1 of 1

DATE	FLOW w/o recycle  mgd	CHLORINE RESIDUAL		HYPOCHLORITE USE			COLIFORM Final Effluent #/100ml
		Final Effluent mg/L	Contact Tank mg/L	Sand Filters gpd	Contact Tanks gpd	Total gpd	
02/01/04	16.5						
02/02/04	16.1						
02/03/04	17.5						
02/04/04	16.8						
02/05/04	14.9						
02/06/04	19.0						
02/07/04	20.9						
02/08/04	18.5						
02/09/04	17.6						
02/10/04	16.1						
02/11/04	18.1						
02/12/04	16.9						
02/13/04	17.3						
02/14/04	16.3						
02/15/04	14.6						
02/16/04	16.9						
02/17/04	16.7						
02/18/04	15.3						
02/19/04	15.6						
02/20/04	15.5						
02/21/04	16.3						
02/22/04	15.6						
02/23/04	16.1						
02/24/04	16.0						
02/25/04	15.1						
02/26/04	15.0						
02/27/04	15.2						
02/28/04	15.8						
02/29/04	15.3						
Minimum	14.6						
Average	16.5						
Maximum	20.9						
Total	477.7						

2004 NOV -4 P 8:26

Geo Mean



# CHLORINATION REPORT

## BROCKTON,MA AWRF

Page 1 of 1

DATE	FLOW w/o recycle  mgd	CHLORINE RESIDUAL		HYPOCHLORITE USE			COLIFORM Final Effluent #/100ml
		Final Effluent mg/L	Contact Tank mg/L	Sand Filters gpd	Contact Tanks gpd	Total gpd	
03/01/04	16.2						
03/02/04	14.3						
03/03/04	15.2						
03/04/04	15.8						
03/05/04	16.4						
03/06/04	16.8						
03/07/04	16.7						
03/08/04	16.3						
03/09/04	16.3						
03/10/04	15.6						
03/11/04	16.1						
03/12/04	15.4						
03/13/04	17.0						
03/14/04	15.6						
03/15/04	17.5						
03/16/04	15.0						
03/17/04	15.7						
03/18/04	13.4						
03/19/04	14.0						
03/20/04	14.7						
03/21/04	16.2						
03/22/04	15.2						
03/23/04	15.6						
03/24/04	15.3						
03/25/04	14.8						
03/26/04	15.7						
03/27/04	16.8						
03/28/04	14.9						
03/29/04	15.5						
03/30/04	14.2						
03/31/04	16.5						
Minimum	13.4						
Average	15.6						
Maximum	17.5						
Total	484.9						

2004 NOV -4 P 8: 26

Geo Mean



**CHLORINATION REPORT**  
**BROCKTON,MA AWRF**

Page 1 of 1

DATE	FLOW w/o recycle  mgd	CHLORINE RESIDUAL		HYPOCHLORITE USE			COLIFORM Final Effluent #/100ml
		Final Effluent mg/L	Contact Tank mg/L	Sand Filters gpd	Contact Tanks gpd	Total gpd	
04/01/04	35.5	0.0	0.44		133	133	
04/02/04	38.3	0.0	0.34		168	168	
04/03/04	33.0	0.0	0.35		171	171	
04/04/04	30.9	0.0	0.35		173	173	
04/05/04	29.7	0.0	0.34		192	192	
04/06/04	27.3	0.0	0.35		242	242	2,167
04/07/04	25.7	0.0	0.37		294	294	14
04/08/04	24.6	0.0	0.48		246	246	
04/09/04	22.7	0.0	0.56		130	130	178
04/10/04	18.1	0.0	0.40		114	114	
04/11/04	22.4	0.0	0.47		101	101	
04/12/04	21.0	0.0	0.46		162	162	
04/13/04	33.8	0.0	0.46		112	112	17
04/14/04	40.3	0.0	0.32		214	214	2,113
04/15/04	38.7	0.2	0.42		183	183	187
04/16/04	32.3	0.0	0.36		153	153	
04/17/04	29.5	0.0	0.36		167	167	
04/18/04	26.5	0.0	0.48		162	162	
04/19/04	25.0	0.0	0.37		175	175	
04/20/04	25.2	0.0	0.37		131	131	32
04/21/04	25.6	0.0	0.42		131	131	18
04/22/04	24.1	0.0	0.37		164	164	64
04/23/04	24.5	0.0	0.40		149	149	
04/24/04	23.3	0.0	0.37		137	137	
04/25/04	21.5	0.0	0.42		109	109	
04/26/04	23.6	0.0	0.44		132	132	
04/27/04	25.2	0.0	0.37		104	104	12
04/28/04	24.0	0.0	0.40		102	102	11
04/29/04	22.6	0.0	0.39		96	96	7
04/30/04	22.3	0.0	0.36		104	104	
Minimum	18.1	0.0	0.32		96	96	7
Average	27.2	0.0	0.40		155	155	57
Maximum	40.3	0.2	0.56		294	294	2,167
Total	817.3				4,651	4,651	

2004 NOV -4 P 8: 26

Geo Mean



# CHLORINATION REPORT

## BROCKTON,MA AWRF

Page 1 of 1

DATE	FLOW w/o recycle  mgd	CHLORINE RESIDUAL		HYPOCHLORITE USE			COLIFORM Final Effluent #/100ml
		Final Effluent mg/L	Contact Tank mg/L	Sand Filters gpd	Contact Tanks gpd	Total  gpd	
05/01/04	22.0	0.0	0.35		99	99	
05/02/04	21.9	0.0	0.35		96	96	
05/03/04	22.8	0.0	0.36		74	74	
05/04/04	22.4	0.0	0.30		87	87	6
05/05/04	21.5	0.0	0.27		101	101	24
05/06/04	19.6	0.0	0.26		100	100	27
05/07/04	19.6	0.0	0.20		88	88	
05/08/04	20.6	0.0	0.27		99	99	
05/09/04	20.7	0.0	0.32		104	104	
05/10/04	21.2	0.0	0.17		85	85	
05/11/04	19.5	0.0	0.21		91	91	6
05/12/04	20.2	0.0	0.22		123	123	9
05/13/04	16.4	0.0	0.23		105	105	11
05/14/04	18.2	0.0	0.26		101	101	
05/15/04	17.5	0.0	0.27		104	104	
05/16/04	16.6	0.0	0.24		87	87	
05/17/04	14.8	0.0	0.21		147	147	
05/18/04	16.4	0.0	0.25		100	100	33
05/19/04	15.6	0.0	0.15		70	70	158
05/20/04	15.0	0.0	0.14		78	78	43
05/21/04	14.7	0.0	0.19		98	98	
05/22/04	15.7	0.0	0.31		105	105	
05/23/04	17.2	0.0	0.24		74	74	
05/24/04	14.9	0.0	0.24		68	68	
05/25/04	14.8	0.0	0.26		70	70	10
05/26/04	15.1	0.0	0.19		52	52	16
05/27/04	15.2	0.0	0.21		76	76	83
05/28/04	16.1	0.0	0.18		70	70	
05/29/04	14.4	0.0	0.26		93	93	
05/30/04	14.8	0.0	0.21		71	71	
05/31/04	14.8	0.0	0.18		97	97	
Minimum	14.4	0.0	0.14		52	52	6
Average	17.8	0.0	0.24		91	91	21
Maximum	22.8	0.0	0.36		147	147	158
Total	550.3				2,813	2,813	

2004 NOV -4 P 8: 26

Geo Mean



# CHLORINATION REPORT

## BROCKTON,MA AWRF

Page 1 of 1

DATE	FLOW w/o recycle  mgd	CHLORINE RESIDUAL		HYPOCHLORITE USE			COLIFORM  Final Effluent #/100ml
		Final Effluent mg/L	Contact Tank mg/L	Sand Filters gpd	Contact Tanks gpd	Total  gpd	
06/01/04	14.9	0.0	0.24		94	94	16
06/02/04	16.6	0.0	0.21		106	106	56
06/03/04	15.1	0.0	0.24		86	86	28
06/04/04	16.0	0.0	0.15		98	98	
06/05/04	16.0	0.0	0.21		84	84	
06/06/04	17.8	0.0	0.23		73	73	
06/07/04	17.7	0.0	0.17		94	94	
06/08/04	15.7	0.0	0.28		100	100	18
06/09/04	14.9	0.0	0.17		75	75	87
06/10/04	14.7	0.0	0.20		70	70	50
06/11/04	14.6	0.0	0.19		87	87	
06/12/04	14.9	0.0	0.20		79	79	
06/13/04	15.3	0.0	0.18		75	75	
06/14/04	14.8	0.0	0.22		87	87	
06/15/04	13.8	0.0	0.19		72	72	30
06/16/04	14.1	0.0	0.22		81	81	24
06/17/04	13.7	0.0	0.18		98	98	18
06/18/04	13.6	0.0	0.20		77	77	
06/19/04	13.3	0.0	0.20		74	74	
06/20/04	13.2	0.0	0.21		67	67	
06/21/04	13.4	0.0	0.19		80	80	
06/22/04	13.7	0.0	0.19		77	77	31
06/23/04	13.0	0.0	0.24		95	95	38
06/24/04	13.5	0.0	0.20		94	94	34
06/25/04	12.7	0.0	0.24		69	69	
06/26/04	12.2	0.0	0.20		60	60	
06/27/04	13.0	0.0	0.21		57	57	
06/28/04	13.3	0.0	0.20		58	58	
06/29/04	13.9	0.0	0.17		67	67	28
06/30/04	12.4	0.0	0.19		92	92	44
Minimum	12.2	0.0	0.15		57	57	16
Average	14.4	0.0	0.20		81	81	32
Maximum	17.8	0.0	0.28		106	106	87
Total	431.5				2,426	2,426	

2004 NOV -4 P 8:26

Geo Mean



**CHLORINATION REPORT**  
**BROCKTON,MA AWRP**

Page 1 of 1

DATE	FLOW w/o recycle  mgd	CHLORINE RESIDUAL		HYPOCHLORITE USE			COLIFORM  Final Effluent #/100ml
		Final Effluent mg/L	Contact Tank mg/L	Sand Filters gpd	Contact Tanks gpd	Total  gpd	
07/01/04	13.2	0.0	0.23		67	67	37
07/02/04	11.7	0.0	0.19		81	81	
07/03/04	12.4	0.0	0.20		88	88	
07/04/04	11.7	0.0	0.21		62	62	
07/05/04	13.6	0.0	0.21		103	103	
07/06/04	12.3	0.0	0.23		78	78	45
07/07/04	12.7	0.0	0.16		73	73	580
07/08/04	11.2	0.0	0.25		97	97	84
07/09/04	12.3	0.0	0.20		60	60	
07/10/04	12.4	0.0	0.24		62	62	
07/11/04	12.3	0.0	0.16		37	37	
07/12/04	12.4	0.0	0.21		59	59	
07/13/04	13.0	0.0	0.24		81	81	23
07/14/04	12.8	0.0	0.24		110	110	26
07/15/04	13.0	0.0	0.26		112	112	33
07/16/04	11.8	0.0	0.21		86	86	
07/17/04	12.4	0.0	0.27		112	112	
07/18/04	12.7	0.0	0.23		103	103	
07/19/04	12.3	0.0	0.27		110	110	
07/20/04	12.6	0.0	0.22		102	102	25
07/21/04	12.1	0.0	0.23		85	85	24
07/22/04	12.9	0.0	0.21		93	93	46
07/23/04	11.8	0.0	0.25		138	138	
07/24/04	13.7	0.0	0.17		113	113	
07/25/04	12.2	0.0	0.33		133	133	
07/26/04	12.7	0.0	0.23		134	134	
07/27/04	12.1	0.0	0.22		70	70	32
07/28/04	13.1	0.0	0.24		70	70	42
07/29/04	12.1	0.0	0.24		98	98	16
07/30/04	12.4	0.0	0.23		120	120	
07/31/04	10.8	0.0	0.23		91	91	
Minimum	10.8	0.0	0.16		37	37	16
Average	12.4	0.0	0.23		91	91	41
Maximum	13.7	0.0	0.33		138	138	580
Total	384.6				2,828	2,828	

2004 NOV -4 P 8: 26

Geo Mean



# CHLORINATION REPORT

## BROCKTON,MA AWRP

Page 1 of 1

DATE	FLOW w/o recycle  mgd	CHLORINE RESIDUAL		HYPOCHLORITE USE			COLIFORM  Final Effluent #/100ml
		Final Effluent mg/L	Contact Tank mg/L	Sand Filters gpd	Contact Tanks gpd	Total  gpd	
08/01/04	12.1	0.0	0.20		94	94	
08/02/04	12.3	0.0	0.18		74	74	
08/03/04	11.7	0.0	0.20		56	56	38
08/04/04	12.7	0.0	0.23		70	70	19
08/05/04	14.4	0.0	0.21		83	83	118
08/06/04	12.6	0.0	0.20		91	91	
08/07/04	12.3	0.0	0.23		154	154	
08/08/04	12.7	0.0	0.26		155	155	
08/09/04	11.2	0.0	0.29		136	136	
08/10/04	12.0	0.0	0.20		101	101	49
08/11/04	12.3	0.0	0.20		90	90	44
08/12/04	12.1	0.0	0.19		105	105	85
08/13/04	13.6	0.0	0.22		128	128	
08/14/04	12.7	0.0	0.22		116	116	
08/15/04	18.3	0.0	0.26		126	126	
08/16/04	14.5	0.0	0.21	0	71	71	
08/17/04	14.0	0.0	0.20	0	117	117	40
08/18/04	14.0	0.0	0.26		121	121	134
08/19/04	13.9	0.0	0.24		133	133	86
08/20/04	13.3	0.0	0.22		105	105	
08/21/04	15.0	0.0	0.27		132	132	
08/22/04	15.0	0.0	0.33		139	139	
08/23/04	14.6	0.0	0.21		101	101	
08/24/04	14.2	0.0	0.31		138	138	94
08/25/04	14.0	0.0	0.25		117	117	30
08/26/04	13.3	0.0	0.28		95	95	98
08/27/04	13.4	0.0	0.26		77	77	
08/28/04	12.9	0.0	0.28		54	54	
08/29/04	14.2	0.0	0.34		76	76	
08/30/04	12.8	0.0	0.23		75	75	
08/31/04	14.1	0.0	0.29		58	58	122
Minimum	11.2	0.0	0.18	0	54	54	19
Average	13.4	0.0	0.24	0	103	103	63
Maximum	18.3	0.0	0.34	0	155	155	134
Total	416.1			0	3,188	3,188	

2004 NOV -4 P 8:26

Geo Mean



# CHLORINATION REPORT

## BROCKTON,MA AWRF

Page 1 of 1

DATE	FLOW w/o recycle  mgd	CHLORINE RESIDUAL		HYPOCHLORITE USE			COLIFORM  Final Effluent #/100ml
		Final Effluent mg/L	Contact Tank mg/L	Sand Filters gpd	Contact Tanks gpd	Total  gpd	
09/01/04	12.5	0.0	0.24	47	35	82	62
09/02/04	11.3	0.0	0.23	47	50	97	166
09/03/04	11.7	0.0	0.21	47	64	111	
09/04/04	11.6	0.0	0.22	47	45	92	
09/05/04	11.4	0.0	0.22	47	52	99	
09/06/04	12.5	0.0	0.25	76	69	145	
09/07/04	12.1	0.0	0.22	85	16	101	27
09/08/04	11.8	0.0	0.27	68	93	161	19
09/09/04	13.4	0.0	0.19	56	99	155	22
09/10/04	12.0	0.0	0.21	64	74	138	
09/11/04	12.1	0.0	0.18	64	74	138	
09/12/04	12.3	0.0	0.22	125	108	233	
09/13/04	12.4	0.0	0.29	62	106	168	
09/14/04	13.3	0.0	0.27	62	97	159	14
09/15/04	12.5	0.0	0.24	62	90	152	24
09/16/04	12.7	0.0	0.26	60	91	151	19
09/17/04	11.9	0.0	0.22	62	70	132	
09/18/04	17.2	0.0	0.24	62	104	166	
09/19/04	13.2	0.0	0.22	64	104	168	
09/20/04	12.8	0.0	0.20	69	104	173	
09/21/04	13.7	0.0	0.23	64	112	176	18
09/22/04	11.8	0.0	0.22	62	115	177	52
09/23/04	12.8	0.0	0.22	62	102	164	12
09/24/04	12.2	0.0	0.23	62	88	150	
09/25/04	11.9	0.0	0.28	62	116	178	
09/26/04	12.7	0.0	0.23	62	125	187	
09/27/04	12.6	0.0	0.23	62	105	167	
09/28/04	14.9	0.0	0.20	62	124	186	10
09/29/04	17.4	0.0	0.19	62	145	207	37
09/30/04	14.5	0.0	0.22	62	117	179	13
Minimum	11.3	0.0	0.18	47	16	82	10
Average	12.8	0.0	0.23	63	90	153	25
Maximum	17.4	0.0	0.29	125	145	233	166
Total	385.0			1,898	2,694	4,592	

2004 NOV -4 P 8: 26

Geo Mean



**CHLORINATION REPORT**  
**BROCKTON,MA AWRP**

Page 1 of 1

DATE	FLOW w/o recycle  mgd	CHLORINE RESIDUAL		HYPOCHLORITE USE			COLIFORM Final Effluent #/100ml
		Final Effluent mg/L	Contact Tank mg/L	Sand Filters gpd	Contact Tanks gpd	Total gpd	
10/01/04	16.1	0.0	0.30	62	100	162	
10/02/04	15.4	0.0	0.26	62	88	150	
10/03/04	15.0	0.0	0.29	62	108	170	
10/04/04	14.2	0.0	0.22	62	76	138	
10/05/04	13.7	0.0	0.23	62	62	124	10
10/06/04	14.2	0.0	0.26	62	51	113	11
10/07/04	14.0	0.0	0.25	53	58	111	21
10/08/04	12.3	0.0	0.29	62	64	126	
10/09/04	12.9	0.0	0.28	62	73	135	
10/10/04	13.3	0.0	0.26	62	81	143	
10/11/04	14.1	0.0	0.26	62	76	138	
10/12/04	14.2	0.0	0.28	62	85	147	11
10/13/04	14.7	0.0	0.20	62	67	129	14
10/14/04	14.4	0.0	0.29	62	61	123	10
10/15/04	15.5	0.0	0.22	62	50	112	
10/16/04	14.8	0.0	0.20	62	78	140	
10/17/04	14.3	0.0	0.29	62	109	171	
10/18/04	13.9	0.0	0.26	62	76	138	
10/19/04	12.9	0.0	0.23	62	84	146	15
10/20/04	14.6	0.0	0.23	62	83	145	4
10/21/04	14.4	0.0	0.26	62	109	171	13
10/22/04	14.2	0.0	0.26	62	81	143	
10/23/04	14.8	0.0	0.30	62	84	146	
10/24/04	14.4	0.0	0.25	62	114	176	
10/25/04	14.2	0.0	0.30	62	92	154	
10/26/04	15.0	0.0	0.21	62	73	135	19
10/27/04	14.0	0.0	0.24	62	88	150	24
10/28/04	14.1	0.0	0.19	62	97	159	20
10/29/04	14.6	0.0	0.23	62	111	173	
10/30/04	15.0	0.0	0.26	62	118	180	
10/31/04	14.3	0.0	0.26	62	87	149	
Minimum	12.3	0.0	0.19	53	50	111	4
Average	14.3	0.0	0.25	62	83	145	13
Maximum	16.1	0.0	0.30	62	118	180	24
Total	443.4			1,913	2,584	4,497	

2004 NOV -4 P 8:26

Geo Mean